

## SAFETY DATA SHEET

according to US Regulation 29 CFR 1910.1200 and the Canadian HPA

### Ethyl acetoacetate

Version 1.3

Revision Date 2021.11.15

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#### SECTION 1. IDENTIFICATION

Product name : Ethyl acetoacetate

Synonyms : ETAA

#### Manufacturer or supplier's details

Company : Arxada, LLC  
412 Mount Kemble Avenue, Suite 200S  
Morristown, NJ 07960  
USA

Telephone : 1-201-316-9200

E-mail address : sds-info@arxada.com

Emergency telephone number : For incidents only (spill, leak, fire, exposure, or accident), call  
CHEMTREC at  
1-800-424-9300 (inside North America) [CCN 864796]  
1-703-741-5970 (outside North America) [CCN 864796]  
  
+41 61 313 94 94 (24h )

#### Recommended use of the chemical and restrictions on use

Recommended use : Intermediate  
Solvent  
Fragrance

#### SECTION 2. HAZARDS IDENTIFICATION

##### GHS Classification

Flammable liquids : Category 4

##### GHS label elements

Signal word : Warning

Hazard statements : H227 Combustible liquid.

Precautionary statements : **Prevention:**  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P280 Wear protective gloves/ eye protection/ face protection.  
**Response:**  
P370 + P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish.  
**Storage:**  
P402 + P404 Store in a dry place. Store in a closed container.  
P410 + P403 Protect from sunlight. Store in a well-ventilated place.  
**Disposal:**  
P501 Dispose of contents/container in accordance with local regulation.

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### Other hazards

None known.

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### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance  
 Substance name : Butanoic acid, 3-oxo-, ethyl ester  
 CAS-No. : 141-97-9

### Hazardous components

No hazardous ingredients

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### SECTION 4. FIRST AID MEASURES

If inhaled : Move to fresh air.  
 If unconscious, place in recovery position and seek medical advice.

In case of skin contact : Wash with water and soap as a precaution.  
 If on clothes, remove clothes.  
 In the case of skin irritation or allergic reactions see a physician.

In case of eye contact : Flush eyes with water as a precaution.  
 Remove contact lenses.  
 Keep eye wide open while rinsing.  
 Protect unharmed eye.  
 If eye irritation persists, consult a specialist.

If swallowed : Clean mouth with water and drink afterwards plenty of water.  
 Never give anything by mouth to an unconscious person.  
 If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed : No information available.

Notes to physician : Treat symptomatically.

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### SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water spray  
 Alcohol-resistant foam  
 Dry chemical

Unsuitable extinguishing media : High volume water jet

Specific hazards during firefighting : Heating or fire can release toxic gas.

Further information : Use water spray to cool unopened containers.

Special protective equipment for : In the event of fire, wear self-contained breathing apparatus.

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firefighters : Use personal protective equipment.

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### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.

Environmental precautions : Try to prevent the material from entering drains or water courses.

Methods and materials for containment and cleaning up : Neutralize with chalk, alkali solution or ammonia. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

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### SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Take precautionary measures against static discharges.

Advice on safe handling : No special precautions required.

Conditions for safe storage : Keep container tightly closed.  
Keep in a well-ventilated place.  
Electrical installations / working materials must comply with the technological safety standards.  
To maintain product quality, do not store in heat or direct sunlight.

Further information on storage conditions : Store containers in compliance with the most recent NFPA Code (NFPA 30). Ground all containers prior to pouring.

Technical measures/Precautions : Store containers in compliance with the most recent NFPA Code (NFPA 30). Ground all containers prior to pouring.

Materials to avoid : No special restrictions on storage with other products.

Further information on storage stability : No decomposition if stored and applied as directed.

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### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

**Engineering measures** : Use only in area provided with appropriate exhaust ventilation.

#### Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally re-

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	quired.
Hand protection	
Remarks	: Wear protective gloves. Break through time : > 480 min
Eye protection	: Safety glasses
Skin and body protection	: Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety practice.

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### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: clear
Colour	: colourless
Odour	: ester-like
Odour Threshold	: no data available
pH	: 3.8 (68 °F / 20 °C) Concentration: 125 g/l
Freezing point	: -63.9 °F / -53.3 °C Decomposition: no Method: OECD Test Guideline 102 GLP: no
Boiling point/boiling range	: 357.1 °F / 180.6 °C Decomposition: no Method: OECD Test Guideline 103 GLP: no  179.2 - 187.5 °F / 81.8 - 86.4 °C (26.6 hPa)
Flash point	: 164.3 °F / 73.5 °C (1,013 hPa) Method: Regulation (EC) No. 440/2008, Annex, A.9, closed cup GLP: no
Evaporation rate	: no data available
Flammability (solid, gas)	: no data available
Flammability (liquids)	: no data available
Upper explosion limit	: 54 %(V)
Lower explosion limit	: 1 %(V)
Vapour pressure	: 0.26 hPa (68 °F / 20 °C)

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	Decomposition: no Method: OECD Test Guideline 104 GLP: no
	0.42 hPa (77 °F / 25 °C) Decomposition: no Method: OECD Test Guideline 104 GLP: no
	3.5 hPa (122 °F / 50 °C) Decomposition: no Method: OECD Test Guideline 104 GLP: no
Relative vapour density	: 4.48
Relative density	: no data available
Density	: 1.03 g/cm <sup>3</sup> (68 °F / 20 °C) Method: OECD Test Guideline 109 GLP: no
Bulk density	: no data available
Water solubility	: 130.3 g/l (68 °F / 20 °C) Method: OECD Test Guideline 105 GLP: no
Solubility in other solvents	: completely miscible Solvent: organic solvent
Partition coefficient: n-octanol/water	: log Pow: 0.8(68 °F / 20 °C) Method: OECD Test Guideline 117 GLP: no
Auto-ignition temperature	: 662 °F / 350 °C (996.8 hPa) Method: Council Regulation (EC) No. 440/2008, A.15 GLP: no
Decomposition temperature	: no data available
Viscosity, dynamic	: 1.696 mPa.s (68 °F / 20 °C)
Viscosity, kinematic	: no data available
Explosive properties	: Not explosive
Oxidizing properties	: The substance or mixture is not classified as oxidizing.
Surface tension	: 62.2 mN/m, 68 °F / 20 °C, OECD Test Guideline 115, GLP: yes
Molecular weight	: 130.14 g/mol
Minimum ignition energy	: no data available

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### SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	Stable under recommended storage conditions.
Possibility of hazardous reactions	:	Stable under recommended storage conditions. No hazards to be specially mentioned.
Conditions to avoid	:	Heat
Incompatible materials	:	Strong acids and strong bases Oxidizing agents
Hazardous decomposition products	:	No decomposition if used as directed.

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### SECTION 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg Method: DOT
Acute inhalation toxicity	:	LC50 (Rat): > 5,995 mg/m <sup>3</sup> Exposure time: 6 h Test atmosphere: dust/mist Remarks: Test atmosphere assumed based on available information.
Acute dermal toxicity	:	LD50 (Rat): > 2,000 mg/kg Method: OECD Test Guideline 402 GLP: yes

#### Skin corrosion/irritation

Species: Rabbit  
Exposure time: 4 h  
Assessment: No skin irritation  
Method: DOT  
Result: Mild skin irritation

#### Serious eye damage/eye irritation

Species: Rabbit  
Result: slight irritation  
Exposure time: 24 h  
Assessment: No eye irritation  
Method: OECD Test Guideline 405  
GLP: yes

#### Respiratory or skin sensitisation

Test Type: Magnusson & Kligman  
Species: Guinea pig  
Method: OECD Test Guideline 406  
Result: not sensitizing  
GLP: yes

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### Germ cell mutagenicity

- Genotoxicity in vitro
- : Test Type: Ames test  
Species: Salmonella typhimurium  
Method: OECD Test Guideline 471  
Result: negative  
GLP: yes
  - : Test Type: Ames test  
Species: Escherichia coli  
Method: OECD Test Guideline 472  
Result: negative  
GLP: yes
  - : Test Type: Chromosome aberration test in vitro  
Species: V79  
Method: OECD Test Guideline 473  
Result: negative  
GLP: yes
  - : Test Type: gene mutation test  
Species: V79  
Method: OECD Test Guideline 476  
Result: negative  
GLP: yes

### Carcinogenicity

Remarks: no data available

### Reproductive toxicity

Effects on fertility : Remarks: no data available

### STOT - single exposure

Remarks: no data available

### STOT - repeated exposure

Remarks: no data available

### Repeated dose toxicity

Species: Rat  
Application Route: Oral  
Dose: 50 - 225 - 1000 MG/KG/TAG  
Group: yes  
Method: OECD Test Guideline 407  
GLP: yes

### Aspiration toxicity

No aspiration toxicity classification

### Further information

Remarks: no data available

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### SECTION 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

- Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 100 mg/l  
 Exposure time: 96 h  
 Method: OECD Test Guideline 203  
 GLP: yes
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l  
 Exposure time: 48 h  
 Test Type: Immobilization  
 Analytical monitoring: yes  
 Method: OECD Test Guideline 202  
 GLP: yes
- Toxicity to algae : ErC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l  
 End point: Growth rate  
 Exposure time: 72 h  
 Test Type: Growth inhibition  
 Analytical monitoring: yes  
 Method: OECD Test Guideline 201  
 GLP: yes
- Toxicity to microorganisms : EC10 (Pseudomonas putida): 33 mg/l  
 Exposure time: 16 h  
 Test Type: Cell multiplication inhibition test  
 GLP:

#### Persistence and degradability

- Biodegradability : Test Type: Zahn-Wellens Test  
 Inoculum: activated sludge  
 Result: Inherently biodegradable.  
 Biodegradation: > 90 %  
 Exposure time: 28 d  
 Method: OECD Test Guideline 302B  
 GLP: no
- Test Type: Closed Bottle test  
 Inoculum: activated sludge  
 Result: Readily biodegradable.  
 Biodegradation: 66 %  
 Exposure time: 28 d  
 Method: OECD Test Guideline 301D  
 GLP: yes

#### Bioaccumulative potential

- Bioaccumulation : Remarks: no data available

#### Mobility in soil

- Distribution among environmental compartments : Absorption / desorption  
 Medium: Soil  
 Koc: 31.45 Method: Calculation method

#### Other adverse effects



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Additional ecological information : no data available

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### SECTION 13. DISPOSAL CONSIDERATIONS

#### Disposal methods

- Waste from residues : Dispose of contents/container in accordance with local regulation.  
Contact waste disposal services.
- Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.
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### SECTION 14. TRANSPORT INFORMATION

#### DOT

- UN number** : NA 1993  
**Proper shipping name** : Combustible liquid, n.o.s.  
 (Ethyl acetylacetate)  
**Transport hazard class** : CBL  
**Packing group** : III  
 Emergency Response Guidebook : 128  
 Number  
**Environmental hazards** : no

#### TDG

: Not dangerous goods

- UN number** : Not applicable  
**Proper shipping name** : Not applicable  
**Transport hazard class** : Not applicable  
**Packing group** : Not applicable

#### IATA

Not dangerous goods

- UN number** : Not applicable  
**Proper shipping name** : Not applicable  
**Transport hazard class** : Not applicable  
**Packing group** : Not applicable

#### IMDG

Not dangerous goods

- UN number** : Not applicable  
**Proper shipping name** : Not applicable  
**Transport hazard class** : Not applicable  
**Packing group** : Not applicable

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<b>ADR</b>	:	Not dangerous goods
<b>UN number</b>	:	Not applicable
<b>Proper shipping name</b>	:	Not applicable
<b>Transport hazard class</b>	:	Not applicable
<b>Packing group</b>	:	Not applicable
<b>RID</b>	:	Not dangerous goods
<b>UN number</b>	:	Not applicable
<b>Proper shipping name</b>	:	Not applicable
<b>Transport hazard class</b>	:	Not applicable
<b>Packing group</b>	:	Not applicable
<b>Special precautions for user</b>	:	49CFR: no dangerous good in non-bulk packaging
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	:	Not applicable

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## SECTION 15. REGULATORY INFORMATION

### SARA 311/312 Hazards

See above: SECTION 2. Hazard Identification-GHS Classification

### US State Regulations

#### Massachusetts Right To Know

Listed

#### Pennsylvania Right To Know

Listed

#### California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**The product components have the following inventory status:**

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## SECTION 16. OTHER INFORMATION

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### Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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